

WHAT IS CLAIMED IS:

2 1. For association with a digital video recorder, a
3 controller that multiplexes packetized elementary streams into a
4 multiplexed program stream, said packetized elementary streams
5 comprising PES packets of disparate size, said controller operable
6 to (i) receive said PES packets into a memory buffer, (ii) reformat
7 each of said received PES packets into at least one fixed-size
8 program packet having a header and a payload, said header defining
9 a payload content, and (iii) associate ones of said at least one
10 fixed-size program packets into said multiplexed program stream.

1 2. The controller as set forth in Claim 1 further operable
2 to store said multiplexed program stream in a storage disk.

1 3. The controller as set forth in Claim 2 wherein the fixed
2 size of said at least one fixed-size program packets is a multiple
3 of a sector size of said storage disk.

1 4. The controller as set forth in Claim 1 wherein each said
2 header defines at least one of stream type, timing information and
3 picture information.

1 5. The controller as set forth in Claim 1 wherein said
2 header of each one of said at least one fixed-size program packet
3 has a fixed size.

1 6. A digital video recorder capable of playing back a
2 recorded program stream, said digital video recorder comprising:

3 a video processor capable of receiving an incoming
4 program stream and converting said incoming program stream to a
5 baseband signal capable of being displayed on a television
6 associated with said digital video recorder;

7 a storage disk; and

8 a controller that multiplexes packetized elementary
9 streams into a multiplexed program stream, said packetized
10 elementary streams comprising PES packets of disparate size, said
11 controller operable to (i) receive said PES packets into a memory
12 buffer, (ii) reformat each of said received PES packets into at
13 least one fixed-size program packet having a header and a payload,
14 and (iii) associate and store ones of said at least one fixed-size
15 program packets into said multiplexed program stream in said
16 storage disk.

1 7. The controller as set forth in Claim 6 wherein the fixed
2 size of said at least one fixed-size program packets is a multiple
3 of a sector size of said storage disk.

1 8. The controller as set forth in Claim 6 wherein each said
2 header defines a payload content of each said at least one fixed-
3 size program packet.

1 9. The controller as set forth in Claim 6 wherein each said
2 header defines at least one of stream type, timing information and
3 picture information.

1 10. The controller as set forth in Claim 6 wherein said
2 header of each one of said at least one fixed-size program packet
3 has a fixed size.

1 11. A method of multiplexing packetized elementary streams
2 into a multiplexed program stream for recording in a digital video
3 recorder having a storage disk, said packetized elementary streams
4 comprising PES packets of disparate size, said method comprising
5 the steps of:

6 receiving said PES packets into a memory buffer;

7 reformatting each of said received PES packets into at

8 least one fixed-size program packet having a header and a payload;
9 and

10 recording associated ones of said at least one fixed-size
11 program packets as said multiplexed program stream in said storage
12 disk.

1 12. The method as set forth in Claim 11 further comprising

2 the step of playing back said recorded program stream.

1 13. The method as set forth in Claim 12 wherein said digital
2 video recorder comprises a video processor, said method further
3 comprising the steps of:

4 receiving said played-back program stream; and
5 converting said received program stream to a baseband
6 signal capable of being displayed on a television associated with
7 said digital video recorder.

1 14. The method as set forth in Claim 11 wherein the fixed
2 size of said at least one fixed-size program packets is a multiple
3 of a sector size of said storage disk.

1 15. The method as set forth in Claim 11 wherein each said
1 header defines a payload content of each said at least one fixed-
2 size program packet.

1 16. The method as set forth in Claim 11 wherein each said
2 header defines at least one of stream type, timing information and
3 picture information.

1 17. The method as set forth in Claim 11 wherein said header
2 of each one of said at least one fixed-size program packet has a
3 fixed size.

1 18. A multiplexed program stream recorded to a storage disk
2 associated with a digital video recorder, said multiplexed program
3 stream comprising a plurality of fixed-size program packets, ones
4 of said plurality of fixed-size program packets comprising
5 reformatted ones of a plurality of PES packets of disparate size,
6 each of said plurality of PES packets associated with a packetized
7 elementary stream received at said digital video recorder.

1 19. The multiplexed program stream as set forth in Claim 18
2 wherein each of said plurality of fixed-size program packets
3 comprises a header and a payload, each said header defines at least
4 one of stream type, timing information and picture information.

1 20. The multiplexed program stream as set forth in Claim 18
2 wherein each of said plurality of fixed-size program packets
3 comprises a header and a payload, each said header having a fixed
4 size.